
Marine Physical Laboratory

ONR R/P FLIP SUPPORT

W. A. Kuperman

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Research Summary

During 2001, the research platform FLIP (FLoating Instrument Platform) supported four research cruises as follows:

From 20 to 29 June 2001, FLIP supported the Hawaii Ocean Mixing Experiment (HOME) scientific equipment test trip drifting west of San Diego. The Principal Investigator was Dr. Robert Pinkel, SIO/UCSD, the ONR sponsor was L. Goodman, Code 322PO. The test trip was successful in testing equipment to be used during the HOME cruise to be conducted in Hawaiian waters in October 2001.

From 09 to 26 July 2001, FLIP supported the ONR sponsored Passive Synthetic Aperture Sonar (PasSAS) experiment moored 36 miles west of San Diego. The Principal Investigator was Dr. Gerald D'Spain, SIO/UCSD, the ONR sponsor was J. Teague, Code 321 US. ARL Penn State participated in this research experiments.

During the period 02 to 11 August 2001, USNS Sioux towed FLIP from San Diego to Pearl Harbor Hawaii.

On 20 August USNS Sioux towed FLIP to sea to support the ONR sponsored Rough Evaporation Duct (RED) northeast of Oahu, Hawaii. Sioux experienced problems mooring FLIP, and FLIP was returned to

Pearl Harbor on 22 August. Sioux was replaced by the USS Salvor ARS 52 who on 24 August successfully moored FLIP for RED. The Principal Investigator for RED was Kenn Anderson, SPAWAR, the ONR sponsor was Dr. Scott Sandgathe, ONR 322MM. RED was successfully completed and FLIP was returned to Pearl Harbor by USS Salvor on 18 September.

On 01 October USS Salvor towed FLIP to sea support to support the Hawaii Ocean Mixing Experiment (HOME). FLIP was moored in 14000 feet of water, 250 miles southwest of Oahu, Hawaii. The Principal Investigator was Dr. Robert Pinkel, SIO/UCSD, the ONR sponsor, L. Goodman, Code 322PO. FLIP remained on station for 40 days and 40 nights, returning to Pearl Harbor on 09 November, towed by USNS Sioux.

FLIP was towed from Pearl Harbor on 15 November 2001, and arrived back in San Diego on 26 November. Major maintenance performed on FLIP during 2001 included a major refurbishment of ballast tanks 3 B and 9 B and the replacement of all ballast tank blow and vent lines. A structural inspections by ABS and Glosten Associates, marine architects, of Seattle, Washington was conducted in April 2001. The findings of the inspection as reported by Glosten associates is as follows:

Overall, the current condition of FLIP is very good. However, the previous global structural material loss does not leave a lot of margin for further structural deterioration. Thus, careful attention and maintenance must be applied to correct problems with relatively small areas so the situation does not get out of hand. Additionally, we would suggest that a traditional gauging of girth belts of the shell plate, such as would be performed at an ABS Special Survey, be done at the next drydocking. The location and extent of gaugings can be determined in consultation with ABS. The local inspection of the shell plate in way of the areas that previously experienced cracking should be continued and the portions under the waterline should be examined at the next drydocking. The procedures established by the Navy inspectors from Carderock should be followed to the extent practicable.

FLIP is scheduled to dry dock in 2002.

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